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09/826,188	04/04/2001	Koji Ashizaki	450100-03124	2843

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EXAMINER

CASIANO, ANGEL L

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,188

Applicant(s)

ASHIZAKI ET AL.

Examiner

Angel L. Casiano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☒ Claim(s) 5 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The present Office action is in response to application filed 04 April 2001.
2. Claims 1-33 are pending in the application.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
4. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). Accordingly, priority date is set as 05 April 2000.

Drawings

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

- Fig. 13, "ST4"
- Fig. 16, "S12", "R17", "R16".

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

7. The disclosure is objected to because of the following informalities:

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- Page 41, second paragraph; "operating system 1" should read "printing system 1".

Appropriate correction is required.

8. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

9. Claims 5 and 11 are objected to because of the following informalities:

- As for claim 5, "fist step" should read "first step".
- As for claim 11, a comma must be added after "judges" and after "information".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 12 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claim 12 recites the limitation "printing unit" in reference to claim 11. However, neither the cited claim nor its parent (claim 9) recites a "printing unit". There is insufficient antecedent basis for this limitation in the claim.

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13. Claim 15 recites “fourth step” in reference to claim 13. However, claim 13 includes first, second and third steps only. Therefore, there is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. Claims 1-3, 5-7, 9-11, 13-15 and 17-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Isoda [US 6,249,835 B1].

Regarding claim 1, Isoda teaches a data converter (see col. 1, lines 66-67; col. 2, lines 1, 8). The converter found in the cited prior art converts print data (see col. 2, lines 10-13) transmitted from a printing control unit to a printing unit via a serial bus (see col. 3, lines 48-50; Fig. 3). Isoda incorporates, as part of the disclosure, judging means (see “discrimination information”, col. 2, line 5) for detecting print data information included in a command (see Fig. 9). Isoda teaches print data information indicating and “judging” the type of print data transmitted from the control

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unit (see col. 4, lines 13-15, 28-32; col. 18, lines 52-56). Isoda teaches conversion control means (see col. 2, line 7; col. 9, lines 57-60). The data is converted into a type supported by the printing unit (see col. 4, lines 28-30; col. 5, lines 16-17; col. 6, lines 66-67; col. 7, lines 1-2; col. 8, lines 48-53) and outputted to the printing unit (see col. 4, line 31).

As per claim 2, Isoda teaches a serial bus conforming to the IEEE 1394 standard (see Figs. 3, 6-8).

As per claim 3, the disclosure by Isoda teaches judging the type of page-description language of the print data (see "PDL", col. 4, lines 14, 29; col. 5, lines 28-30). Isoda also converts the print data transmitted from the printing control unit to a type of page-description language supported by the printing unit (see col. 4, lines 28-31).

Regarding claim 5, Isoda teaches a data converter for converting print data transmitted from a printing control unit to a print unit via a serial bus (see rejection for claim 1). Therefore, Isoda also teaches the data converting method directed to the data converter disclosed in claim 1. The present claim is rejected under the same basis.

As per claim 6, Isoda teaches a serial bus conforming to the IEEE 1394 standard (see Figs. 3, 6-8).

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As per claim 7, the disclosure by Isoda teaches judging the type of page-description language of the print data (see "PDL", col. 4, lines 14, 29; col. 5, lines 28-30). Isoda also converts the print data transmitted from the printing control unit to a type of page-description language supported by the printing unit (see col. 4, lines 28-31).

Regarding claim 9, Isoda exposes a data converter for converting print data transmitted from a printing control unit to a print unit via a serial bus (see rejection for claim 1). Therefore, Isoda also teaches the print unit (printer) directed to output the data converted in claim 1. The present claim is rejected under the same basis.

As for claim 10, Isoda teaches a serial bus conforming to the IEEE 1394 standard (see Figs. 3, 6-8).

As for claim 11, the disclosure by Isoda teaches judging means for the type of page-description language of the print data (see "PDL", col. 4, lines 14, 29; col. 5, lines 28-30).

Regarding claim 13, Isoda teaches a data converter for converting print data transmitted from a printing control unit to a print unit via a serial bus (see rejection for claim 1). Therefore, Isoda also teaches the printing method directed to print the data converted in claim 1. The present claim is rejected under the same basis.

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As per claim 14, Isoda teaches a serial bus conforming to the IEEE 1394 standard (see Figs. 3, 6-8).

As per claim 15, the disclosure by Isoda teaches judging the type of page-description language of the print data (see "PDL", col. 4, lines 14, 29; col. 5, lines 28-30). Isoda also converts the print data transmitted from the printing control unit to a type of page-description language supported by the printing unit (see col. 4, lines 28-31).

Regarding claim 17, Isoda teaches a data converter for converting print data transmitted from a printing control unit to a print unit via a serial bus (see rejection for claim 1). Therefore, Isoda also teaches the printing control unit directed to the data converter in claim 1. The present claim is rejected under the same basis.

As per claim 18, Isoda teaches a serial bus conforming to the IEEE 1394 standard (see Figs. 3, 6-8).

As for claim 19, the disclosure by Isoda teaches identifying the type of page-description language of the print data (see "PDL", col. 4, lines 14, 29; col. 5, lines 28-30). Isoda also identifies information corresponding to the manufacturer of the printing unit (inherent, see col. 8, line 50).

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As per claim 20, the disclosure by Isoda teaches judging the type of page-description language of the print data (see "PDL", col. 4, lines 14, 29; col. 5, lines 28-30). Isoda also converts the print data transmitted from the printing control unit to a type of page-description language supported by the printing unit (see col. 4, lines 28-31).

As for claim 21, Isoda judges whether the print data transmitted from the print control unit to the printing unit is video data (see "image data", col. 5, lines 29-30) or data described in a page-description language (see "PDL", col. 5, line 28).

Regarding claim 22, Isoda teaches a data converter for converting print data transmitted from a printing control unit to a print unit via a serial bus (see rejection for claim 1). Therefore, Isoda also teaches the printing controlling method directed to the data converter in claim 1. The present claim is rejected under the same basis.

As per claim 23, Isoda teaches a serial bus conforming to the IEEE 1394 standard (see Figs. 3, 6-8).

As per claim 24, Isoda teaches identifying the type of page-description language of the print data (see "PDL", col. 4, lines 14, 29; col. 5, lines 28-30). Isoda also identifies information corresponding to the manufacturer of the printing unit (inherent, see col. 8, line 50).

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As for claim 25, Isoda teaches judging the type of page-description language of the print data (see "PDL", col. 4, lines 14, 29; col. 5, lines 28-30). Isoda also converts the print data transmitted from the printing control unit to a type of page-description language supported by the printing unit (see col. 4, lines 28-31).

In consideration of claim 26, Isoda judges whether the print data transmitted from the print control unit to the printing unit is video data (see "image data", col. 5, lines 29-30) or data described in a page-description language (see "PDL", col. 5, line 28).

Regarding claim 27, Isoda teaches a printing system (see Abstract). The cited system includes a printing control unit (see col. 2, lines 10-13). The cited unit includes means for generating data to be printed by a printing unit connected via a serial bus (see col. 3, lines 48-50; Fig. 3). Isoda discloses input/output means for outputting a control command (inherent, see col. 18, lines 52-53; Fig. 1-6). Isoda teaches print data information indicating and "judging" the type of print data transmitted from the control unit (see col. 4, lines 13-15, 28-32; col. 18, lines 52-56). The cited system exposes means for making a printing work by use of the printing data supplied from the printing control unit via the input/output means (see Figs. 1-3). Isoda teaches conversion control means (see col. 2, line 7; col. 9, lines 57-60). The data is converted into a type supported by the printing means (see col. 4, lines 28-30; col. 5, lines 16-17; col. 6, lines 66-67; col. 7, lines 1-2; col. 8, lines 48-53) and outputted to the printing unit (see col. 4, line 31).

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Regarding claim 28, this is oriented to a printing method in which data is transmitted via a serial bus from a printing control unit to a printing unit. Isoda teaches a method for converting print data transmitted from a printing control unit to a print unit via a serial bus (see rejection for claim 1). Therefore, Isoda also teaches the printing method directed to the data converter and printing system disclosed in previous claims. The present claim is rejected under the same basis.

Regarding claim 29, Isoda teaches a printing system (see Abstract). The system includes a printing control unit (see col. 2, lines 10-13). The cited unit includes means for generating data to be printed by a printing unit connected via a serial bus (see col. 3, lines 48-50; Fig. 3). Isoda discloses input/output means for outputting a control command (inherent, see col. 18, lines 52-53; Fig. 1-6). Isoda teaches print data information indicating and "judging" the type of print data transmitted from the control unit (see col. 4, lines 13-15, 28-32; col. 18, lines 52-56). The cited system exposes means for making a printing work by use of the printing data supplied from the printing control unit via the input/output means (see Figs. 1-3). Isoda teaches conversion control means (see col. 2, line 7; col. 9, lines 57-60). The data is converted into a type supported by the printing means (see col. 4, lines 28-30; col. 5, lines 16-17; col. 6, lines 66-67; col. 7, lines 1-2; col. 8, lines 48-53) and outputted to the printing unit (see col. 4, line 31).

Regarding claim 30, this is directed to a printing method in which data is transmitted via a serial bus from a printing control unit to a printing unit. Isoda teaches a method for converting print data transmitted from a printing control unit to a print unit via a serial bus (see rejection for claim

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1). Therefore, Isoda also teaches the printing method directed to the data converter and printing system disclosed in previous claims. The present claim is rejected under the same basis.

Regarding claim 31, Isoda teaches a printing system (see Abstract). The system includes a printing control unit (see col. 2, lines 10-13). The cited unit includes means for generating data to be printed by a printing unit connected via a serial bus (see col. 3, lines 48-50; Fig. 3). Isoda discloses input/output means for outputting a control command (inherent, see col. 18, lines 52-53; Fig. 1-6). Isoda teaches print data information indicating and “judging” the type of print data transmitted from the control unit (see col. 4, lines 13-15, 28-32; col. 18, lines 52-56). The cited system exposes means for making a printing work by use of the printing data supplied from the printing control unit via the input/output means (see Figs. 1-3). Isoda teaches conversion control means and a data converting block (see col. 2, line 7; col. 9, lines 57-60). The data is converted into a type supported by the printing means (see col. 4, lines 28-30; col. 5, lines 16-17; col. 6, lines 66-67; col. 7, lines 1-2; col. 8, lines 48-53) and outputted to the printing unit (see col. 4, line 31).

Regarding claim 32, this is oriented to a printing method in which data is transmitted via a serial bus from a printing control unit to a printing unit. Isoda teaches a method for converting print data transmitted from a printing control unit to a print unit via a serial bus (see rejection for claim 1). Therefore, Isoda also teaches the printing method directed to the data converter and printing system disclosed in previous claims. The present claim is rejected under the same basis.

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Regarding claim 33, Isoda teaches a data transmitting method in which data is transmitted from a printing control unit via a serial bus (see Abstract; Figs 1-6). The cited method includes using a printing control unit (see col. 2, lines 10-13). The cited method teaches generating data to be printed by a printing unit connected via a serial bus (see col. 3, lines 48-50; Fig. 3). Isoda discloses input/output means for outputting a control command (inherent, see col. 18, lines 52-53; Fig. 1-6). Isoda teaches print data information indicating and "judging" the type of print data transmitted from the control unit (see col. 4, lines 13-15, 28-32; col. 18, lines 52-56) and if the data is supported by the printer (can or cannot be printed). The cited method includes the step of making a printing work by use of the printing data supplied from the printing control unit via the input/output means (see Figs. 1-3). Isoda teaches conversion control means (see col. 2, line 7; col. 9, lines 57-60). The original data is converted into a type supported by the printing means (see col. 4, lines 28-30; col. 5, lines 16-17; col. 6, lines 66-67; col. 7, lines 1-2; col. 8, lines 48-53) and outputted to the printing unit so it can be printed (see col. 4, line 31).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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17. Claims 4, 8, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isoda [US 6,249,835 B1].

As for claim 4, the data converter found in the cited reference judges whether the print data transmitted from the print control unit is video data (see "image data", col. 5, lines 29-30) or data described in a page-description language (see "PDL", col. 5, line 28). Although Isoda teaches video and PDL data, it does not explicitly disclose outputting the video data as it is. It teaches instead, converting the print data in page-description language ("PDL") into a type supported by the printing unit (see col. 4, lines 28-31). It does teach transmitting image data to the printing unit (see col. 4, line 14; col. 9, lines 57-60). In addition, Isoda teaches the use of a serial bus capable of supporting real time data transmission of a large amount of vide and audio data (see col. 14, lines 1-13). Therefore, one of ordinary skill in the art would have been motivated to output the video data to the printing unit as it is, if the data would have been supported by the interface and printer type (see col. 4, lines 30-31).

As per claim 8, the data converting method found in the cited reference judges whether the print data transmitted from the print control unit is video data (see "image data", col. 5, lines 29-30) or data described in a page-description language (see "PDL", col. 5, line 28). Although Isoda teaches video and PDL data, it does not explicitly disclose outputting the video data as it is. It teaches instead, the step of converting the print data in page-description language ("PDL") into a type supported by the printing unit (see col. 4, lines 28-31). It also teaches transmitting image data to the printing unit (see col. 4, line 14; col. 9, lines 57-60). In addition, Isoda teaches the

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use of a serial bus capable of supporting real time data transmission of a large amount of vide and audio data (see col. 14, lines 1-13). Therefore, one of ordinary skill in the art would have been motivated to output the video data to the printing unit as it is, if the data would have been supported by the interface and printer type (see col. 4, lines 30-31).

As for claim 12, the cited reference judges whether the print data transmitted from the print control unit is video data (see "image data", col. 5, lines 29-30) or data described in a page-description language (see "PDL", col. 5, line 28). Although Isoda teaches video and PDL data, it does not explicitly disclose outputting the video data as it is. It teaches instead, converting the print data in page-description language ("PDL") into a type supported by the printing unit (see col. 4, lines 28-31). It does teach transmitting image data to the printing unit (see col. 4, line 14; col. 9, lines 57-60). In addition, Isoda teaches the use of a serial bus capable of supporting real time data transmission of a large amount of vide and audio data (see col. 14, lines 1-13). Therefore, one of ordinary skill in the art would have been motivated to output the video data to the printing unit as it is, if the data would have been supported by the interface and printer type (see col. 4, lines 30-31).

As for claim 16, the cited reference judges whether the print data transmitted from the print control unit is video data (see "image data", col. 5, lines 29-30) or data described in a page-description language (see "PDL", col. 5, line 28). Although Isoda teaches video and PDL data, it does not explicitly disclose outputting the video data as it is. It teaches instead, converting the print data in page-description language ("PDL") into a type supported by the printing unit (see

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col. 4, lines 28-31). It does teach transmitting image data to the printing unit (see col. 4, line 14; col. 9, lines 57-60). In addition, Isoda teaches the use of a serial bus capable of supporting real time data transmission of a large amount of vide and audio data (see col. 14, lines 1-13). Therefore, one of ordinary skill in the art would have been motivated to output the video data to the printing unit as it is, if the data would have been supported by the interface and printer type (see col. 4, lines 30-31).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Isoda et al. [US 6,477,587 B1] teaches common-based communications between an initiator and a target.
- Tateyama et al. [US 5,845,144] discloses information processing apparatus with internal printer.
- Curry [US 5,671,440] discloses color image data reorientation and format conversion system.
- Yamada [US 5,659,770] teaches text/image processing apparatus determining synthesis format.
- Johnson [US 5,524,184] teaches on-line bar code printer with automatic communication parameter determining system.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L. Casiano whose telephone number is 703-305-8301. The examiner can normally be reached on 8:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

alc
12 October 2003.


JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100